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Version: 4.0

## Valida S231C

### PRODUCT DESCRIPTION

Fibrillated cellulose in water suspension. Valida S231C is derived from wood pulp that has been sourced from sustainably managed forests. The product is a multifunctional bio-based additive which can be widely used in waterborne coatings, Inks, adhesives to provide unique rheological and physical properties.

INCI name: CELLULOSE

CAS No. 9004-34-6

### SPECIFICATION

Parameters	Value	Unit	Test method
<b>Product Form</b>	Paste		Visual
<b>Color</b>	White		Visual
<b>Solid Content</b>	7.5-8.5	%	ESTM 9302
<b>Viscosity of 1.0% at 100s<sup>-1</sup>, 20 °C</b>	≥520	mPas	ESTM 5303
<b>pH of 1% suspension</b>	7.0-9.0		pH Meter
<b>Total Fines</b>	≥91	%	ESTM 9003
<b>Preservative</b>	Yes		

### ENVIRONMENTAL INFORMATION

Valida S231C is biodegradable and harmless.

### INFORMATION FOR HANDLING VALIDA S231C

Valida S231C Dispersion Guidance:

A good dispersion of Valida S231C is critical to utilize its full benefits. We recommend to introduce Valida S231C at an early process step, preferably dispersing Valida S231C together with other fillers or pigments via grinding or high shear mixing.

Table. Redispersion guideline for Valida S231C:

Dispersion equipment	Speed (rpm)	Batch size (grams)	Dispersion time (min)	Vision check
<b>Ultra Turrax (T25)</b>	10000	400	5	The correctly dispersed suspension will show efficient thickening effect with a cream-like appearance. Visible lumps or aggregates are a clear indication of an undispersed suspension.
<b>Dispermat dissolver</b>	2000	400	30	

## DOSAGE GUIDELINE

The optimal dosage Valida S231C depends on the required functionality, as well as the nature of the other ingredients in the formulation. Note that adding Valida S231C will not result in an immediate thickening effect. The primary functionality of Valida S231C is stabilization at low viscosity. A combination of Valida S231C and a thickener is recommended when a 'gel-like' system is required.

Valida grade	Composition (wt.%)	Valida S231C /Total Formulation (g/g)	Active content (g/g Formulation)	The amount of water introduced to the formulation by Valida (g/g)
Valida S231C	8 ± 0.5% Cellulose 92 ± 0.5% Water	1.0%	0.08%	0.92%
		3.0%	0.24%	2.76%
		5.0%	0.4%	4.6%
		12.5%	1.0%	11.5%

## DELIVERY FORM

Vacuum plastic bags in cardboard boxes (2 bags per box, 20 kg net weight) on pallets.

## STORAGE STABILITY

Recommended storage condition: ambient or lower, and avoid freezing and direct exposure to sunlight, the product has a shelf life of 24 months from date of production. Once open, containers or bags containing Valida S231C should be re-sealed to avoid moisture loss and used within 3 months.